CLAIM LISTING

1. (Previously Presented) A fastening element for an implant, in particular a hip prosthesis, comprising a supporting element and an at least largely hollow pin extending from the supporting element, the hollow pin having an inside bone contact surface and an outside bone contact surface, the fastening element further including a fixing means for fixing the fastening element in a position in which the hollow pin extends at least largely into a bone.

2. (Original) A fastening element according to claim 1, wherein the supporting element is substantially plate-shaped and extends on at least two sides beyond an outer longitudinal edge of the pin.

3. (Original) A fastening element according to claim 1, wherein the pin has a longitudinal axis which includes an angle with a main surface of the supporting element, such that during use the supporting element abuts against a sawn-off surface of a bone and the longitudinal axis of the pin extends at an angle with respect to said surface.

4. (Original) A fastening element according to claim 1, wherein the fixing means comprise at least one wire element which during use extends from a side remote from the supporting element, of the bone or bone system in which the pin is fitted, into or alongside the pin and has been fixed to the pin and/or the supporting element.

5. (Original) A fastening element according to claim 1, wherein the supporting element comprises on the side remote from the pin a coupling element for a further part of a prosthesis or orthesis.

6. (Original) A fastening element according to claim 5, wherein the coupling element is offset with respect to the longitudinal axis of the pin.

7. (Original) A fastening element according to claim 1, arranged as a fastening element for a hip prosthesis, the pin comprising a longitudinal axis, the supporting element at

least adjacent the pin being plate-shaped, and the longitudinal axis including an angle with at least the plate-shaped part of the supporting element which is between 125° and 145°.

8. (Original) A fastening element according to claim 1, arranged as a fastening element for a hip prosthesis, the pin comprising a longitudinal axis, the supporting element at least adjacent the pin being plate-shaped, and the longitudinal axis including an angle with at least the plate-shaped part of the supporting element which is smaller than about 125°, for use with a *coxa vara*.

9. (Original) A fastening element according to claim 1, arranged as a fastening element for a hip prosthesis, the pin comprising a longitudinal axis, the supporting element at least adjacent the pin being plate-shaped, and the longitudinal axis including an angle with at least the plate-shaped part of the supporting element which is greater than about 145°, for use with a *coxa valga*.

10. (Original) A fastening element according to claim 1, wherein the pin has at least partly a cross section, at right angles to the longitudinal axis thereof, which is not symmetrical with respect to said longitudinal axis, preferably slightly triangular or multiangular.

11. (Original) A fastening element according to claim 1, wherein the pin is provided, on at least the outside or the inside, preferably on both sides, with a finish which enables, preferably improves, bone ingrowth.

12. (Original) A fastening element according to claim 1, wherein the fixing means are manufactured at least partly from memory metal.

13. (Original) A fastening element according to claim 1, wherein the fixing means comprise tensioning means with which a bias can be set.

14. (Original) A fastening element according to claim 1, wherein the fixing means comprise at least one screw which is screwable into the pin and/or the supporting element from the side remote from the supporting element.

15. (Original) A fastening element according to claim 14, wherein at least two and preferably three or four screws are provided, screwable into the supporting element, at a distance from the pin.

16. (Currently Amended) An assembly of [[a]] an exogenous bone and a fastening element for an orthesis or prosthesis, which fastening element comprises a supporting element and a pin extending from the supporting element and being preferably at least largely hollow, with a portion of the exogenous bone having been sawn off, such that an abutment surface has been obtained which is at least partly defined by spongy bone, while the pin has been driven at least partly into the spongy bone, such that the supporting element abuts against said abutment surface, preferably at least partly against cortical bone, with at least the pin having been fixed in the bone.

17. (Currently Amended) An assembly according to claim 16, wherein fixing means are used which comprise at least one fixing element which, remote from the fastening element, has been inserted through cortical bone of the exogenous bone in question and has been coupled to the fastening element, which fixing element has a supporting surface for being supported against said cortical bone.

18. (Currently Amended) An assembly according to claim 16, wherein the exogenous bone is a femur or portion thereof, wherein the femur head has been sawn off, wherein at least a part of the neck has been maintained, such that an abutment surface has been obtained, preferably such that in the normal upright position of the femur the abutment surface extends approximately horizontally, while the longitudinal axis of the pin includes an angle with the supporting element, and the pin has been driven into the spongy bone, such that the supporting element lies flat against the abutment surface.

19. (Original) An assembly according to claim 18, wherein said angle between longitudinal axis and supporting element corresponds approximately to the CCD angle of the femur in question.

20. (Original) An assembly according to claim 17, wherein a fastening pin has been inserted through the lateral cortical bone and is connected with the pin or the supporting element, while the fastening pin is provided with supporting means which are supported against the lateral cortical bone.

21. (Currently Amended) An assembly according to claim [[16]] 18, wherein on the supporting element a coupling element is provided for a portion of the prosthesis or orthesis, in particular a hip head, so positioned that it has an offset with respect to the longitudinal axis of the femur.

22. (Original) An assembly according to claim 21, wherein on the coupling element a hip head has been placed, while the longitudinal axis of the pin intersects the hip head, preferably approximately through the center thereof.

23. (Original) An assembly according to claim 21, wherein the coupling element is cone-shaped and has a longitudinal axis which includes an angle with the longitudinal axis of the pin, which corresponds approximately to the CCD angle of the femur in question.

24. (Cancelled)

25. (Original) An assembly according to claim 16, wherein at least one bolt has been screwed from the lateral cortex into the supporting element, in particular into the pin.

26. (Currently Amended) An assembly according to claim 16, wherein at least two ~~and preferably three or four~~ bolts have been screwed from the lateral cortex into the supporting element, at a distance from the pin.

27. (Original) A tool for fitting a fastening element according to claim 1 in a bone, in particular in a surface obtained by sawing off a portion of said bone, which surface contains at least a portion defined by spongy bone, which tool comprises a template provided with a hole pattern corresponding to a circumference of a pin of the fastening element, which holes have a centerline which extends parallel to the angle between a supporting element of the fastening element and the longitudinal axis of the pin, such that after placement of the template on said surface, through said holes a series of bores in the bone can be provided, whereafter the pin can be driven into the bone, steered by said bores.

28. (Original) A tool according to claim 27, wherein at least one central opening is provided for drilling a passage for a fastening pin.

29. (Previously Presented) A method for fastening an implant in a bone of a patient comprising:

sawing off at least part of a bone for forming an abutment surface, such that the abutment surface extends approximately at right angles to the load axis of the joint; and

driving at least one substantially hollow pin of a fastening element from the abutment surface into the bone, such that a supporting element to which the hollow pin is fastened comes to lie against said abutment surface, and such that an inside surface and an outside surface of the hollow pin contact bone.

30. (Original) A method according to claim 29, wherein the pin is driven into the bone at an angle with respect to said surface.

31. (Previously Presented) A method according to claim 30, wherein the bone is a femur having a head subcapitally sawn off, whereafter the pin is driven into the bone at an angle such that the longitudinal axis of the pin extends approximately parallel to the longitudinal axis of the neck.

32. (Previously Presented) A method according to claim 29, wherein drillings in the bone are performed prior to driving the pin into the bone.

33. (Original) A method according to claim 29, wherein the fastening element is fixed from a cortical bone part remote from the abutment surface by introducing at least one pin through said cortical bone, which pin is fixed to the fastening element.

34. (Currently Amended) A fastening element for an implant, in particular a hip prosthesis, comprising a supporting element and a pin extending from the supporting element, while fixing means are provided for fixing the fastening element in a position in which the pin extends at least largely into a bone, wherein the supporting element has a bottom surface such that during use the bottom surface abuts against a sawn-off surface of a bone, and a top surface that is substantially parallel to the bottom surface and is substantially flat,

wherein the pin has a longitudinal axis that extends at an angle of between about 125° and about 145° with respect to the bottom surface of the supporting element.

35. (Previously Presented) A fastening element according to claim 34, wherein the supporting element is substantially plate-shaped and extends on at least two sides beyond an outer longitudinal edge of the pin.

36. (Cancelled)

37. (Previously Presented) A fastening element according to claim 34, wherein the fixing means comprise at least one wire element which during use extends from a side remote from the supporting element, of the bone or bone system in which the pin is fitted, into or alongside the pin and has been fixed to the pin and/or the supporting element.

38. (Previously Presented) A fastening element according to claim 34, wherein the supporting element comprises on the side remote from the pin a coupling element for a further part of a prosthesis or orthesis.

39. (Previously Presented) A fastening element according to claim 38, wherein the coupling element is offset with respect to the longitudinal axis of the pin.

40. (Previously Presented) A fastening element according to claim 34, arranged as a fastening element for a hip prosthesis, the pin comprising a longitudinal axis, the supporting element at least adjacent the pin being plate-shaped, and the longitudinal axis including an angle with at least the plate-shaped part of the supporting element which is between 125° and 145°.

41. (Previously Presented) A fastening element according to claim 34, arranged as a fastening element for a hip prosthesis, the pin comprising a longitudinal axis, the supporting element at least adjacent the pin being plate-shaped, and the longitudinal axis including an angle with at least the plate-shaped part of the supporting element which is smaller than about 125°, for use with a *coxa vara*.

42. (Previously Presented) A fastening element according to claim 34, arranged as a fastening element for a hip prosthesis, the pin comprising a longitudinal axis, the supporting element at least adjacent the pin being plate-shaped, and the longitudinal axis including an angle with at least the plate-shaped part of the supporting element which is greater than about 145°, for use with a *coxa valga*.

43. (Previously Presented) A fastening element according to claim 34, wherein the pin has at least partly a cross section, at right angles to the longitudinal axis thereof, which is not symmetrical with respect to said longitudinal axis, preferably slightly triangular or multiangular.

44. (Previously Presented) A fastening element according to claim 34, wherein the pin is provided, on at least the outside or the inside, preferably on both sides, with a finish which enables, preferably improves, bone ingrowth.

45. (Previously Presented) A fastening element according to claim 34, wherein the fixing means are manufactured at least partly from memory metal.

46. (Previously Presented) A fastening element according to claim 34, wherein the fixing means comprise tensioning means with which a bias can be set.

47. (Previously Presented) A fastening element according to claim 34, wherein the fixing means comprise at least one screw which is screwable into the pin and/or the supporting element from the side remote from the supporting element.

48. (Previously Presented) A fastening element according to claim 47, wherein at least two and preferably three or four screws are provided, screwable into the supporting element, at a distance from the pin.

49. (Previously Presented) A tool for fitting a fastening element according to claim 34 in a bone, in particular in a surface obtained by sawing off a portion of said bone, which surface contains at least a portion defined by spongy bone, which tool comprises a template provided with a hole pattern corresponding to a circumference of a pin of the fastening element, which holes have a centerline which extends parallel to the angle between a supporting element of the fastening element and the longitudinal axis of the pin, such that after placement of the template on said surface, through said holes a series of bores in the bone can be provided, whereafter the pin can be driven into the bone, steered by said bores.

50. (Previously Presented) A tool according to claim 49, wherein at least one central opening is provided for drilling a passage for a fastening pin.

51. (Currently Amended) A method for fastening an implant in a bone of a patient comprising:

sawing off at least part of a bone for forming an abutment surface, such that the abutment surface extends approximately at right angles to the load axis of the joint; and

driving at least one pin of a fastening element from the abutment surface into the bone, such that a bottom surface of a supporting element to which the pin is fastened comes to lie against said abutment surface, wherein the supporting element further comprises a top surface that is substantially parallel to the bottom surface and is substantially flat,

<u>wherein the pin is driven into the bone at an angle of between about 125° and about 145° with respect to said surface</u>.

52. (Cancelled)

53. (Currently Amended) A method according to claim ~~52~~ 51, wherein the bone is a femur is having a head subcapitally sawn off, whereafter the pin is driven into the bone at an angle such that the longitudinal axis of the pin extends approximately parallel to the longitudinal axis of the neck.

54. (Previously Presented) A method according to claim 51, wherein drillings in the bone are performed prior to driving the pin into the bone.

55. (Previously Presented) A method according to claim 51, wherein the fastening element is fixed from a cortical bone part remote from the abutment surface by introducing at least one pin through said cortical bone, which pin is fixed to the fastening element.

56. (Previously Presented) A fastening element according to claim 34, wherein the pin is at least largely hollow.

57. (New) A fastening element according to claim 51, wherein the supporting element comprises on the side remote from the pin a coupling element for a further part of a prosthesis or orthesis, the coupling element being offset with respect to the longitudinal axis of the bone.

58. (New) A method according to claim 34, wherein the supporting element comprises on the side remote from the pin a coupling element for a further part of a prosthesis or orthesis, the coupling element being offset with respect to the longitudinal axis of the bone.

59. (New) A fastening element for a hip prosthesis, comprising:

a substantially plate-shaped supporting element having a first side and a second side;

a pin extending from the first side of the supporting element at an angle α_1 with the first side of the supporting element and having a cross section, at right angles to a longitudinal axis of the pin, which is rotationally asymmetrical; and

a coupling element extending from the second side of the supporting element at an offset with respect to the longitudinal axis of the pin;

wherein the supporting element extends on at least two sides beyond an outer longitudinal edge of the pin, and wherein α_1 is greater than 90°.

60. (New) The fastening element of claim 59, wherein the pin is substantially solid.

61. (New) The fastening element of claim 59, further comprising a head attached to the coupling element at an end opposite the supporting element.

62. (New) The fastening element of claim 59, wherein the supporting element has a bottom surface on the first side such that during use the bottom surface abuts against a sawn-off surface of a bone.

63. (New) The fastening element of claim 59, wherein the supporting element further comprises a top surface that is substantially parallel to the bottom surface and is substantially flat.

64. (New) A fastening element according to claim 59, wherein α_1 is between 125° and 145°.

65. (New) A fastening element according to claim 59, wherein α_1 is smaller than about 125°, for use with a *coxa vara*.

66. (New) A fastening element according to claim 59, wherein α_1 is greater than about 145°, for use with a *coxa valga*.

67. (New) A method for fastening an implant in a bone of a patient comprising:

sawing off at least part of a bone for forming an abutment surface, such that the abutment surface extends approximately at right angles to the load axis of the joint;

drilling a hole into the bone through the abutment surface at an angle α with the abutment surface; and

cementing into the hole a fastening element comprising a substantially plate-shaped supporting element having a first side and a second side, a pin extending from the first side of the supporting element at an angle α_1 with the first side of the supporting element and having a cross section, at right angles to a longitudinal axis of the pin, which is rotationally asymmetrical, and a coupling element extending from the second side of the supporting element at an offset with respect to the longitudinal axis of the pin, wherein the supporting element extends on at least two sides beyond an outer longitudinal edge of the pin, wherein α_1 is greater than 90°,

such that a supporting element to which the hollow pin is fastened comes to lie against said abutment surface.

68. (New) A method according to claim 67, wherein the bone is a femur having a head subcapitally sawn off, whereafter the pin is driven into the bone at an angle such that the longitudinal axis of the pin extends approximately parallel to the longitudinal axis of the neck.

69. (New) A method according to claim 67, wherein α_1 is between about 125° and about 145°.

70. (New) A method according to claim 67, wherein α_1 is smaller than about 125°, for use with a *coxa vara*.

71. (New) A method according to claim 67, wherein α_1 is greater than about 145°, for use with a *coxa valga*.

72. (New) A method according to claim 67, wherein the supporting element further comprises a top surface that is substantially parallel to the bottom surface and is substantially flat.

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